REMARKS

Claims 1-4, 9-12, and 28-31 are pending in the application. Claims 5-8 and 13-27 are canceled. Claims 1 and 9 are currently amended. Claims 32-37 are new. Support for the claim amendments can be found throughout the specification and in the claims as originally filed. In particular, support for new claims 32-37 can be found, e.g., on page 5, lines 16-18, page 7, lines 8-20 and page 31, lines 15-21. No new matter has been added.

Amendment of the originally filed claims or cancellation of any claim should in no way be construed as an acquiescence, narrowing, or surrender of any subject matter. The amendments are being made not only to point out with particularity and to claim the present invention, but also to expedite prosecution of the present application. Applicants reserve the option to prosecute the originally filed claims further, or similar ones, in the instant or subsequently filed patent applications.

Applicants wish to thank Examiner Ouspenski and Primary Examiner Gambel for the December 20, 2006 interview with Applicants' counsel. The various amendments and arguments discussed during the interview are set forth herein.

Rejection under 35 U.S.C. § 112

Claims 1-4, 9-12, and 28-31 were rejected under 35 U.S.C. § 112, first paragraph as allegedly containing new matter. Specifically, the Examiner states that thedisclosure does not appear to provide support for a method of "treating type I diabetes". Further, the Examiner states that the disclosure does not support the phrase "inhibiting the onset of type I diabetes in a subject."

Applicants respectfully traverse the rejection. However, in an effort to expedite prosecution and in no way conceding to the validity of the Examiner's contention, Applicants have amended claims 1 and 9. Applicants believe that the amendment to the claims obviates the rejection.

Claims 1-4, 9-12, and 28-31 are rejected under 35 U.S.C. 112, first paragraph as lacking enablement. Specifically, the Examiner states that the Applicant has "disclosed that PV1 scFv inhibits T cell responses in vitro and delays the onset of diabetic symptoms in NOD Mice," but that "[a]nimal models of type I diabetes have not correlated well with in vivo clinical trial results in patients."

Applicants respectfully traverse the rejection. However, in an effort to expedite prosecution and in no way conceding to the validity of the Examiner's contention, Applicants have amended claims 1 and 9. Applicants believe that the amendment to the claims obviates the rejection.

Claims 29 and 31 are further rejected under 35 U.S.C. 112, first paragraph as lacking enablement. In particular, the Examiner states that "[i]t is apparent that the PV1 antibody is required to practice the claimed invention."

Applicants respectfully traverse this rejection and submit that one skilled in the art at the time of filing of the instant application, with the information disclosed in the present application, would be able to make and use the PV1-antibody. Moreover, the PV1 hybridoma was deposited with the ATCC and has been assigned ATCC accession no. HB-12352.

Rejection under 35 U.S.C. § 102(b)

Claims 1-2 and 9-10 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Linsley et al. (U.S. Patent 5,521,288) as evidenced by Paul (Fundamental Immunology 1999, page 451). In response to the Applicants previous response stating that Linsley et al. do not enable methods of treating type I diabetes, the Examiner states that "Linsley et al. teach blocking anti-CD28 antibodies can be used to treat insulin-dependent diabetes mellitus." Applicants respectfully traverse the rejection.

The standard for anticipation under 35 U.S.C. § 102 is that "[a] claim is only anticipated if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP 2131. Further, "[t]he disclosure in an assertedly anticipating reference must provide an enabling disclosure of the desired subject

matter; mere naming or description of the subject matter is insufficient, if it cannot be produced without undue experimentation." *Elan Pharm., Inc. v. Mayo Found. for Med. Educ. & Research*, F.3d 1051, 1054 (Fed. Cir. 2003), MPEP 2121.01.

The claims of the present invention are drawn to methods of downmodulating an autoimmune response or an ongoing autoimmune response in a subject having type I diabetes or methods of downmodulating CD28 interactions in a subject having type I diabetes comprising administering an effective amount of an antigen binding portion of an anti-CD28 antibody to the subject. Linsley et al. merely demonstrates that an anti-CD28 antibody, namely mAB 9.3, is an inhibitor of *in vitro* immune responses dependent on the interaction of B7 and CD28. The only work actually performed by Linsley et al. with mAB9.3 was ***in vitro*** with various cell lines. Therefore, Linsley et al. cannot anticipate a method of downmodulating an autoimmune response or an ongoing autoimmune response in a subject having type I diabetes or methods of downmodulating CD28 interactions in a subject having type I diabetes, because Linsley et al. does not describe all the elements of the claimed method.

Likewise, the Paul reference does not enable the use of an anti-CD28 antibody for the treatment of immune system diseases and therefore provides no additional evidence to further support for Linsley et al., as suggested by the Examiner. Applicants thus request reconsideration and withdrawal of the rejection.

Rejection under 35 U.S.C. § 102(e)

Claims 1-4, 9-12, 28 and 30 were rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Yu et al. (U.S. Patent Publication 2002/0006403) as evidenced by Paul (Fundamental Immunology 1999, pg. 451). The Examiner asserts that "Yu et al. teach that blocking antibodies can be used to treat autoimmune diseases, such as diabetes mellitus." Applicants respectfully traverse the rejection.

As set forth above, the claims of the present invention are drawn to methods of downmodulating an autoimmune response or ongoing autoimmune response in a subject having type I diabetes or methods of downmodulating CD28 interactions in a subject having type I

diabetes comprising administering an effective amount of an antigen binding portion of an anti-CD28 antibody to the subject. Yu et al. only demonstrates that an anti-CD28 antibody prevents Graft-Versus-Host Disease (GVHD). While Yu et al. generally suggests that anti-CD28 antibodies may be used to treat other immune related disorders, Yu et al. does not enable the treatment of other immune related disorders and certainly does not enable the downmodulation of an autoimmune response of a subject having type I diabetes. Therefore, Yu et al. cannot anticipate a method of downmodulating an autoimmune response or an ongoing autoimmune response in a subject having type I diabetes or a method of downmodulating CD28 interactions in a subject having type I diabetes, because Yu et al. does not describe all the elements of the claimed method.

Similarly, the Paul reference does not enable the use of an anti-CD28 antibody for the treatment of immune related disorders, lending no additional support to the proposition that Yu et al. enables the same, as suggested by the Examiner. Applicants therefore request reconsideration and withdrawal of this rejection.

Applicants remind the Examiner of the discussion of Linsley et al. and Yu et al. in light of Exparte Yu and Anasetti.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants submit that the pending claims are in condition for allowance. Early and favorable reconsideration is respectfully solicited. The Examiner may address any questions raised by this submission to the undersigned at 617-832-1738. The Commissioner is authorized to charge any underpayments, or to credit any overpayment, to Deposit Account No. **06-1448, reference WYS-007.01.**

Respectfully submitted,
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